What is claimed is:

1. A method for determining the volume of a sample of a liquid, comprising the steps of adding a chromophoric indicator to said liquid to achieve a specific concentration of said indicator, separating a sample from said liquid, measuring the optical absorption of said sample and determining the volume of the separated sample by correlating the measured optical absorption with the concentration of the indicator therein, wherein the sample liquid is stained by formation of a complex between ions comprising the chromophoric indicator and a specific ligand comprising the liquid sample.

2. A method for determining a residual volume of a sample separated from a liquid in a sample holder, from which a part of the sample is removed, so that only a sample residue remains in the sample holder, comprising the steps of adding a chromophoric indicator to said liquid to achieve a specific concentration of said indicator, separating a sample from said liquid in the sample holder, adding a diluent to the sample residue, and measuring optical absorption of the diluted sample residue, wherein the residual volume is determined by correlating the measured optical absorption with the original concentration of the indicator in the liquid, wherein the sample liquid is stained by formation of a complex between ions comprising the chromophoric indicator and a specific ligand comprising the liquid sample.

3. The method according to Claim 1,
wherein, prior to separation of the sample, the chromophoric indicator is complexed with the ligand and added to the liquid as a colored complex solution.

4. The method according to Claim 2,

wherein, prior to separation of the sample, the chromophoric indicator is complexed with the ligand and added to the liquid as a colored complex solution.

5. The method according to Claim 1, wherein, prior to separation of a sample, a compensating volume is provided in a sample holder as part of a diluent.

6. The method according to Claim 3, wherein, prior to separation of a sample, a compensating volume is provided in a sample holder as part of a diluent.

7. The method according to Claim 1, wherein, prior to separation of a sample, an indicator salt is added to the liquid, and a sample of the liquid is dispensed into an existing reaction solution comprising chromogenic ligands and complexed therein to develop a color.

8. The method according to Claim 1, wherein, before being added to the liquid and for improving its solubility in said liquid, the chromophoric indicator is complexed with a auxiliary ligand and added to the liquid, a sample of the liquid is dispensed into an existing reaction solution comprising ligands and is complexed therein under conditions that suppress the auxiliary ligand and color development.

9. The method according to Claim 7, wherein the chromogenic ligand is added to the existing reaction solution in excess.

10. The method according to Claim 8, wherein the chromogenic ligand is added to the existing reaction solution in excess.

11. The method according to claim 3, 4, 5, 6, 7, 8, 9 or 10 wherein, after separating the sample in a sample holder well, a supplementary volume is added to this sample holder.

12. The method according to Claim 1, 2 or 11, wherein metal ions are used as indicators.

13. The method according to Claim 12, wherein the metal ions are Fe^{++}, Fe^{+++}, or Cu^{++}.

14. The method according to Claim 1, 2 or 11, wherein anions are used as indicators.

15. The method according to Claim 14, wherein the anion is F^-, Cl^-, or $H_2PO_4^-$.

16. The method according to Claim 12, wherein metal ions that cannot be quantitatively complexed with the chromogenic ligands are used as an indicator.

17. The method of claim 16, wherein the metal ion is Fe^{+++}.

18. The method according to Claim 13, wherein metal ions that cannot be quantitatively complexed with the chromogenic ligands are used as an indicator.

19. The method of claim 18, wherein the metal ion is Fe^{+++}.

20. The method according to Claim 14, wherein metal ions that cannot be quantitatively complexed with the chromogenic ligands are used as an indicator.

21. The method of claim 20, wherein the metal ion is Fe^{+++}.

22. The method according to Claim 16, 17, 18, 19, 20 or 21, wherein the metal ions which cannot be quantitatively complexed with the chromogenic ligands are reduced or oxidized to ions which can be complexed before complexing with the ligands.

23. The method according to Claim 22, wherein hydroxyl amine hydrochloride, tartrate salts, or ascorbic acid is used as a reducing agent, and hexacyanoferrate or elementary bromine is used as an oxidizing agent.

24. The method according to claim 1, wherein a polydentate molecule is used as a ligand.

25. The method of claim 24, wherein the polydentate ligand is as FerroZine®, bathophenantroline-disulfonic acid disodium, bathocuproine-disulfonic acid disodium, or Chromazurol S.

26. The method according to claim 1, wherein β-diketones are used as auxiliary ligands.

27. The method of claim 26, wherein the β-diketones is acetyl acetonate or pentane-2,4-dione-1,5-diol.

28. The method according to claim 14, wherein anthraquinone functionalized systems covalently bonded at the β position are used as ligands.

29. The method of claim 28, anthraquinone functionalized systems covalently bonded at the β position is calix[4]pyrrole-anthraquinone.

30. A system for performing the method according to claim 1 comprising a dispensing and/or pipetting device, a sample holder for holding separated samples, a device for measuring the optical absorption of the samples in the sample holder, and a computer for calculating the volume of the separated samples.

31. The system according to Claim 30, comprising an automated pipettor or dispenser having N channels, wherein N is 1, 4, 8, 96, or 384 channels.

32. The system according to Claim 30, comprising a microplate washer having N channels, wherein N is 8, 12, 16, 96, or 384 channels.

33. The system according to Claim 30,31, or 32, wherein the sample holder is an array of wells or a microplate.

34. The system according to Claim 31 or 32, comprising a carrier plate having external dimensions of a microplate and further comprising a device for measuring microplate temperature.

35. A test kit for performing a method according to claim 1 or for use in a system according to claim 30, the kit comprising at least one solution of the chromophoric indicator having a defined concentration and optical absorption and a receptacle suitable thereto.

36. A test kit according to Claim 35, additionally comprising a defined reaction solution of a chromogenic ligand and a receptacle suitable thereto.

37. A test kit according to Claim 35 or 36, additionally comprising a reducing or oxidizing agent and a receptacle suitable thereto.

38. A test kit according to claims 35 or 36, additionally comprising a diluent buffer or an auxiliary ligand and a receptacle suitable thereto.

39. A test kit according to claim 37, additionally comprising a diluent buffer or an auxiliary ligand and a receptacle suitable thereto.

40. A test kit according to claims 35 or 36, additionally comprising one or a plurality of microplates.

41. A test kit according to claim 37, additionally comprising one or a plurality of microplates.

42. A test kit according to claim 38, additionally comprising one or a plurality of microplates.

43. A test kit according to claim 39, additionally comprising one or a plurality of microplates.